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ABSTRACT

This report examines the first generation of professional development schools (PDSs) sponsored by the Centers for Professional Development of Teachers (CPDT) in Texas, noting challenges faced, issues raised, and lessons learned. Section 1 offers an introduction and overview. Section 2 presents the background of the PDS. Section 3, Texas CPDT and the Development of PDSs, discusses cultural differences between universities and schools, planning of PDSs, and stages of development. Section 4, An Evolving PDS: McCallum High School, describes service learning projects, professional development opportunities, and opportunities for scholarly inquiry. Section 5 discusses the PDS as a Catalyst for Restructuring Teacher Preparation. Section 6, the PDS as a Catalyst for Restructuring Schools, examines professional development and the PDS as a learning community. Section 7, the PDS as a Catalyst for Generating Knowledge, discusses PDS research strategies. Section 8, The Role of Technology in the PDS, examines technological resources of PDSs, technology as a catalyst for change in PDSs, the effect of PDS technology on school students' performance, and sustaining the technology infusion. Section 9, Benefits of Joint Ownership, discusses school-university collaboration, changes in school-university perceptions and roles, increased mutual understanding, and strengthening of collaboration. Section 10 presents Challenges to PDSs. Section 11, Need for Continuing Support, discusses university, school district, and state support. (Contains 31 references.) (SM)

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Restructuring Texas Teacher Education Series **2**

Professional Development Schools

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CENTERS FOR PROFESSIONAL DEVELOPMENT OF TEACHERS

In 1991 the Texas Legislature passed legislation and authorized funding for the Centers for Professional Development of Teachers (CPDTs; originally called Centers for Professional Development and Technology). The CPDTs are designed to support collaboration among public schools, universities, regional education service centers, and other organizations to improve teacher preparation and professional development.

The purpose of the CPDTs is to totally restructure teacher education on the basis of six principles and goals:

- To restructure teacher preparation programs toward performance-centered, field-based models
- To institutionalize the new programs to include all prospective teachers for the long term, not just pilot groups for a short period
- To integrate technology into teacher preparation and to support its enhanced use in PreK–12 schools
- To prepare teachers to address the needs of culturally diverse student populations
- To extend collaboration among universities, schools, and others concerned with teacher preparation
- To establish staff development opportunities that better address the needs of all educators

In 1992 the state funded the first 8 CPDTs. By 1993 the number had increased to 14, and by 1997, to 30. The CPDTs now comprise 43 universities, 15 regional education service centers, and 113 school districts, affecting more than 300,000 students, 19,000 teachers, and 12,000 preservice teachers. The names and the locations of the CPDT universities appear on the inside back cover of this publication. The commitment by the state legislature has been significant, as indicated by the $46 million that it has provided to date.

ABOUT THIS SERIES

This series of seven reports on restructuring teacher education in Texas was produced by representatives of seven CPDT institutions that received 1997–98 grants for Partnerships for Professional Development of Teachers. The series draws on experiences of all the CPDTs, including both successes and challenges.

The seven reports are as follows:

- Field-Based Teacher Education
- Professional Development Schools
- Connecting to Improve Methods Courses
- Assessment
- Distance Learning
- Cultural Pluralism
- Technology

Professional Development Schools as a Catalyst for Reform

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INTRODUCTION

Within the past decade, a number of national reports have stressed the need for major improvements in the preparation of teachers as a foundation for other reform efforts. The Carnegie Forum on Education and the Economy (1986), the Holmes Group (1986), the National Board for Professional Teaching Standards, and others have recommended that future teachers have more rigorous preparation and more authentic experiences to enable them to cope with the increasing complexity, challenges, and diversity of current schools and classrooms. In response the Holmes Group has proposed the concept of the professional development school (PDS) as a means of enhancing the preparation of prospective teachers and supporting the professional growth of practicing teachers.

The PDS borrows heavily from the tested medical model of the teaching hospital, where practitioners, researchers, and clinical professors work together to expand the knowledge base of medicine, improve medical services to patients, and prepare future practitioners. The adaptation of this model by education offers a viable means of collaboration between schools and universities. The PDS model has generated great interest among and strong support from many national education organizations (e.g., the American Association of Colleges for Teacher Education, the American Federation of Teachers, the National Education Association, and the National Network for Educational Renewal). In the past 10 years, across the country, hundreds of school-university collaborations have emerged that focus on development of PDSs. Indicative of the growing interest is the 1997 publication by the National Council for Accreditation of Teacher Education (NCATE) of a draft of standards that it proposes to use in accrediting PDSs.

Interest in PDSs also has grown in Texas, stimulated in part by a 1991 report from the Sid W. Richardson Foundation Forum advocating the development of such schools. On the basis of growing national and state interest in and advocacy of the PDS, in the early 1990s, Texas initiated a large-scale, innovative program to help transform traditional teacher education programs using the PDS model. This effort, now called the Centers for Professional Development of Teachers (CPDTs), has provided start-up funds and support for school-university collaboratives committed to many of the concepts of the PDS. Two important emphases of the CPDT approach to the PDS are (1) working in schools

with diverse student populations and large numbers of students who are not achieving at desired levels and (2) infusing and integrating technology into the professional development of teachers.

Over the past five years, CPDTs across the state have initiated PDSs. These PDSs represent a diversity of strategies, contexts, resources, and approaches. This report focuses on the first generation of CPDT–sponsored PDSs because that generation now has a four- to five-year history. The report provides an overview of experiences undergone, challenges faced, issues raised, and lessons learned. The information is based on a review of existing material on PDSs sponsored by CPDTs, supplemented by telephone interviews with CPDT staff.[1]

BACKGROUND OF THE PDS

The Holmes Group (1986) defines a PDS as a functioning, exemplary public school that, in partnership with an institution of higher education, has three major purposes: student achievement, teacher induction, and improvement of practice. As well, the PDS supports preservice education, provides for the continuing development and professional growth of teachers, helps build and sustain best educational practice, and provides a unique context for thinking about and reinventing schools (Lieberman & Miller, 1990).

Schools that share this mission also are known as professional practice schools (Levine, 1988) and clinical schools (Meade, 1991). Such schools, formed through a collaboration among school districts, colleges, and other organizations, are sites where practitioners, researchers, clinical faculty, and prospective teachers work together to expand the knowledge base of the profession and prepare future practitioners (Sid W. Richardson Foundation Forum, 1992).

1. The PDSs were identified through a written request sent to the directors of the CPDTs. The PDSs selected for study were those that had the longest tenure, whose staffs therefore could draw on extensive experience as they offered their views on and insights into the long-term trends, issues, benefits, difficulties, and strategies encountered in the implementation and the evolution of the PDS concept in Texas. These PDSs included both elementary and secondary schools and varied in school size, setting (urban versus rural), and geographic area. They also included universities of diverse demographic characteristics. When staff of the first-generation PDSs were unavailable, a similar school from the second generation was selected for study.

A number of studies and documents were analyzed in development of the report. The findings of *Centers for Professional Development and Technology State-wide Evaluation Study: Final Summary Report* (Macy Research Associates, 1996) were particularly helpful.

The Holmes Group's 1986 report, *Tomorrow's Schools*, notes as follows:

> By "Professional Development School" we do not mean just a laboratory school for university research, nor a demonstration school. Nor do we mean just a clinical setting for preparing students and intern teachers. Rather, we mean all of these together: a school for the development of novice professionals, for continuing development of experienced professionals and for the research and development of the teaching profession. (p. 1)

The PDS is intended to provide preservice teachers with intensive, realistic, and high-quality experiences in a setting where they can observe effective teaching practices, encounter diversity, and explore and develop their own teaching skills in close interaction with and under the supervision of both college faculty and clinical teachers. Also, it is a place where teachers, teacher educators, and researchers collaborate in ongoing research.

In the Texas PDSs, many teacher preparation courses are taught on site. A powerful and unique aspect of this model is that, as preservice teachers are introduced to new concepts or teaching strategies, they assist in a classroom where they can observe the concept or the strategy demonstrated with real students. They then meet with their course instructor, to be debriefed and to reflect on the effectiveness of the observed strategy with diverse student populations in unique classroom situations. Like the teaching hospital, the PDS strives to provide real-life, complex, holistic experiences that will inform and expand the prospective practitioner's understandings of theory and practice.

Typically teams of university professors and clinical faculty (selected public school teachers) plan and present the university course material. Often a university professor describes the theory and the research on a topic, and a clinical faculty member provides practical classroom-based knowledge about best practices for implementing the research-based instructional strategies. Clinical faculty can demonstrate classroom procedures and provide classroom artifacts that bring to life what preservice teachers are studying. According to CPDT staff, the close working relationship between clinical faculty and university professors builds mutual understanding and respect for the role that each type of professional plays in the education of students and teachers.

"The PDS is intended to provide preservice teachers with intensive, realistic, and high-quality experiences in a setting where they can observe effective teaching practices, encounter diversity, and explore and develop their own teaching skills in close interaction with and under the supervision of both college faculty and clinical teachers."

Report of the Sid W. Richardson Foundation Forum

On the basis of concerns for improving education in Texas, the Sid W. Richardson Foundation Forum (comprising business, education, and government leaders from across the state) discussed the Holmes Group concept of the PDS. The forum agreed that this model pointed to radical change but also provided substantial flexibility. In 1991 the forum circulated a draft report entitled *The Professional Development School: A Commonsense Approach to Improving Education* and held meetings with key state leaders to review and discuss it. The report focused on the need for education reform in Texas and advocated creation of PDSs as a strategy for changing schools and teacher preparation. The draft and the subsequent final report (Sid W. Richardson Foundation Forum, 1992) note as follows (pp. 2–3):

> The state will not have better schools until it has better prepared teachers and administrators. Similarly, to retain the best teachers and administrators, we must have better schools. The dual goals of transforming both teacher preparation and schools may best be accomplished by establishing Professional Development Schools. The Professional Development School would work to attain five major objectives:
>
> - to develop literacy, numeracy and reasoning skills of students;
> - to develop the staff of the school in effective teaching and administration;
> - to prepare future teachers, administrators and teacher educators in effective teaching and leadership;
> - to engage in necessary research and reflection about learning;
> - to serve as a model of learning, inquiry, reflection, innovation and professionalism for other schools.

"The district must be interested in cooperating with a university to create a PDS and in providing it with the resources that will make it a model for other schools. The university must place a high priority on preparation of teachers and administrators and reward the professors who contribute to the schools."

The reports also stress that, for the PDS to succeed, support is necessary from four levels: (1) district, (2) university, (3) community, and (4) state. The district must be interested in cooperating with a university to create a PDS and in providing it with the resources that will make it a model for other schools. The university must place a high priority on preparation of teachers and administrators and reward the professors who contribute to the schools. Professors (and teachers) must engage in relevant research and prepare students for the realities of teaching in contemporary schools. Community leaders must convey the message that education is a top priority and encourage the needed transformation in their schools. The state must support the growth of PDSs in many ways, including allocating funds to help cultivate them, providing state consultants, and waiving regulations that inhibit innovation.

. The wide dissemination and discussion of the forum's report among government, education, and business leaders and legislators helped increase awareness of and interest in the concept of the PDS and its potential for improvement of education in Texas.

TEXAS CPDTS AND THE DEVELOPMENT OF PDS'S

Although a few PDSs were established in Texas during the late 1980s, the major catalyst for the rapid growth and spread of PDSs across the state has been the creation of the CPDT program. Each CPDT has developed one or more PDSs focused on the goals of reforming teacher preparation, improving professional practice, increasing student achievement, expanding the knowledge base of the profession, and integrating technology into the learning process. Typically each CPDT has at least one elementary PDS and one secondary PDS, but many have multiple PDSs. A case in point is the Southwest Texas State University CPDT, which currently has 13 PDSs located in six neighboring school districts.

Cultural Differences Between Universities and Schools

There are cultural differences between universities and schools. For example, university personnel consider research to be a primary goal, whereas school personnel view research as useful but secondary or peripheral to their primary function, educating students (Ponticelli, 1990). Such cultural differences often are difficult to bridge (Barkesdale-Ladd, 1994). Other complicating factors are the structural limitations of both organizations and the possible tensions between higher education faculty and school professionals (Metcalf-Turner & Fischetti, 1996). To bridge these differences and create successful school-university partnerships, the schools and the universities must have joint ownership of issues and innovations and must develop a common agenda for collaboration (Whitford & Schelor, 1987). The CPDT program has provided schools and universities with both a mandate and an incentive for collaboration in the creation of the PDS.

Planning of the PDS

The PDS typically emerged from an intensive planning process involving personnel from a school district, a school campus, and a university, as well as representatives of other collaborative partners such as a regional educational service center and the community. Schools and universities that had established strong collaborative relationships before the genesis of the CPDT program were able to move quickly into cooperative planning and development of a PDS. Others required more time and effort to build a foundation of trust and mutual understanding and to develop shared decision making and workable organizational structures, roles, and support systems.

Shared decision making is of critical importance in creating effective school-university collaborations and has been particularly important in developing PDSs. One challenge confronting the CPDTs has been to strike the appropriate balance between including a wide group of stakeholders and achieving coherence of the new change with existing efforts. Some researchers (e.g., Winitzky, Stoddart, & O'Keefe, 1992) have found inclusion versus coherence to be a troubling issue in education reform.

The CPDTs sponsoring PDSs have developed different strategies, processes, and structures for shared decision making, establishing policies and defining roles and responsibilities of the partners. The CPDTs accomplish planning and management of the PDSs through a wide range of both formal and informal working groups and structures, including steering committees, advisory councils or boards, operations committees, site-based management teams, and school-improvement teams. Although varied, the decision-making structure typically includes the principal, the curriculum director, and teachers from the PDS; district officials; university faculty and/or administrators; and community people.

In addition to creating formal decision-making structures, the CPDTs form task groups to address special needs, such as technology infusion and evaluation or research. Macy Research Associates (1996) notes that, during the four years of its study, the CPDTs reported more than 600 formal planning or management groups. Over time, many of these formal groups and structures have changed to better address the needs of PDSs.

Texas CPDTs were encouraged to develop their own process and criteria for selection of PDS sites. Selection criteria included several if not all of the following characteristics:

- A student population representative of the diversity in the state
- A desire to participate in teacher preparation and professional development
- A mentality of continuous improvement and inquiry already in place at the school (the university could supplement and enhance improvement but not be the sole impetus for it)
- An openness to collaborative professional development
- Availability of space to accommodate the needs of teacher preparation
- An openness to innovation (e.g., integration of technology, performance assessment, interdisciplinary thematic units, cooperative learning, learning styles, and authentic projects)

Stages of Development

The PDSs established through the CPDT program currently vary in both age and stage of evolution. As they continue to evolve, it is helpful to understand that there are recognizable stages of development in the journey toward a fully func-

tioning, high-quality PDS. In its 1997 draft of proposed standards for accrediting PDSs, NCATE has identified three stages of development: prethreshold, threshold, and quality attainment.

> ***"As the Texas PDSs continue to evolve, it is helpful to understand that there are recognizable stages of development in the journey toward a fully functioning, high-quality PDS."***

Prethreshold stage. This stage is characterized by relationship building, development of common values and understandings, and early collaboration between school and university teachers. At this stage "the partners recognize the need to integrate the four main functions of the PDS: preservice teacher preparation, staff development, research, and support of children's learning . . . This integration creates new kinds of work for all participants who share the roles of teachers, learners, researchers, and teacher educators" (p. 2).

Threshold stage. Several institutional commitments must be in place at this stage to support the PDS (p. 3):

1. an agreement which commits school, school district, union/professional association, and the university to the basic mission of a PDS;
2. a commitment by the partners to the critical attributes of a PDS;
3. a positive working relationship and a basis for trust between partners;
4. the achievement of quality standards by partner institutions as evidenced by regional, state, national, or other review;
5. an institutional commitment of resources to the PDS from school and university.

Quality-attainment stage. The critical attributes of quality attainment for which standards have been developed include collaboration; learning community; quality assurance and accountability; equity; and organization, roles, and structure. Collaboration and development of a learning community among school and university partners are essential for a PDS to provide high-quality teacher preparation and staff development, to design and conduct research, and to address children's needs. Accountability and quality assurance are expected in teaching, learning, and learning to teach and in conducting and using research. Further, a PDS must ensure that it addresses issues of equity related to all its functions. Finally, organization, roles, and structures must be designed to support the effective integration of a PDS's core functions.

Levine (1997) concurs with NCATE's five essential conditions and maintains that they must evolve over time.

As noted in later sections, most first-generation PDSs have made

progress in their efforts to achieve the critical attributes of a fully developed PDS.

AN EVOLVING PDS: MCCALLUM HIGH SCHOOL

An example of an evolving PDS is McCallum High School in Austin Independent School District, currently in its fourth year as a CPDT site. Faculty from Southwest Texas State University visited a number of sites in central Texas, and McCallum represented the best fit in terms of the selection criteria listed earlier. McCallum shares the functions of other Texas PDSs, namely, (1) student achievement, (2) teacher induction, and (3) improvement of practice. To gain a sense of the seamless web of preservice activities provided in an evolving PDS, see Exhibit 1. This chronology of a typical day at McCallum illustrates the rich opportunities available to preservice students to learn from professors, teachers, and PreK–12 students in an authentic context.

Representative of the benefits that McCallum has derived from being a PDS are service learning projects, expanded professional development opportunities for university and school faculty, and opportunities for collaborative scholarly inquiry.

Service Learning Projects

Service learning projects offer ways for universities to make a positive contribution to a PDS. Preservice students assigned to McCallum have initiated and participated in a number of campus service projects, among them:

- Tutoring special education students
- Tutoring at-risk students
- Assisting with field trips to several San Antonio art and cultural museums by large numbers of McCallum students
- Assisting with the judging of various contests
- Improving and beautifying the campus

Participation in service projects provides preservice students with an opportunity to develop a broader understanding of the diversity of students' needs, the multifaceted role of teachers, and the complexity of the life of a school. Such learning is natural in the rich context of a fully functioning, evolving PDS.

Professional Development Opportunities

Professional development of both university and PDS faculty is essential if PDSs are to fulfill their function of improving practice. The Southwest Texas State–McCallum partnership provides opportunities for both faculties to participate in collaborative professional development focused on shared visions for restructuring schools and improving

Exhibit 1
A Typical Day at McCallum High School

8:00 a.m.	Southwest Texas State professors arrive at McCallum 30 minutes ahead of preservice "interns." They use time to set up for day, check university mailbox in main office, and make arrangements for upcoming events with teachers, support staff, and administrators.
8:20 a.m.	Professors greet interns as they arrive in Southwest Texas State classroom at McCallum.
8:30 a.m.	Class begins with debriefing of previous day's shadowing activity (each intern followed different high school student's schedule for entire day). Interns comment that well-established classroom procedures save valuable instructional time; that respect for students is usually reciprocated in that students perform better in classes in which teacher expresses genuine interest in them; that range of reading abilities is greater than they had predicted; etc. All these concepts have previously been presented to interns, but "seeing is believing." Discussion moves on to classroom-management lesson on cooperative learning. Interns learn about rationale for, and research on effectiveness of, cooperative learning. Discussion sets stage for classroom presentation on this strategy later in day. Focus will be further extended in interns' late-morning and mid-afternoon content-area reading lessons, which are designed to use cooperative learning.
9:20 a.m.	Interns report to special education classrooms to provide 30 minutes of tutoring to individual students. Experienced special education teacher provides coordination and supervision for this service project. Interns learn first-hand the difficulties that special education students encounter in regular classroom assignments and ways that they can modify assignments appropriately to promote students' success.
10:00 a.m.	Interns report to first assigned content-field classroom, where they work with McCallum teacher. They engage in variety of classroom assistance activities, develop understanding of adolescent behavior, and learn classroom-management techniques and instructional strategies.
11:00 a.m.	Interns report to second assigned content-field classroom.
11:45 a.m.	Interns report back to Southwest Texas State classroom at McCallum. They continue working in cooperative learning groups using an award-winning novel for adolescents that was introduced previously to demonstrate the need to supplement textbooks with literature. Later that afternoon, interns will respond to story by assuming identity of character from book and composing diary entry that they think their character might have written. (Reading textbook advocates this as instructional strategy.)
Noon	Interns lunch together in McCallum cafeteria. Lunch provides time for making friends, developing support system, and sharing hopes and fears as beginning teachers. Professors lunch together too, reflecting on morning and reviewing afternoon plan.
12:30 p.m.	Professors and interns assemble in Southwest Texas State classroom and quickly make way to classroom where sophomore English is taught. Teacher is expert in classroom management and cooperative learning and has agreed to use his planning time this day to talk with interns. He welcomes interns to classroom, which has been furnished and arranged to accommodate cooperative learning. He shares tips on useful and effective classroom-management procedures that save time and build sense of community in classroom. He demonstrates 4MAT lesson-plan cycle that he uses to plan units to accommodate students' learning styles and intelligences. Interns are excited and engaged by teacher's enthusiastic presentation style. On return to Southwest Texas State classroom, one interns says, "I know we've been studying classroom procedures, but I wasn't sure that real teachers used those strategies that much. It's great to see that they do."
1:15 p.m.	Professors debrief interns on English teacher's presentation. Interns reflect on and discuss what they have learned and how it fits with information in classroom-management class. Following debriefing, professors make transition to cooperative learning activity designed to enhance lesson on reading in content field.
2:30 p.m.	Interns are dismissed. That night they will record reflections in dialogue journals, to which Southwest Texas State professors respond regularly with written comments. As teaching interns leave, three Southwest Texas State administrative interns and their professor arrive for meeting with block professors to explore how they might work collaboratively with teaching interns on projects designed to meet McCallum's needs. Group discusses possibility of project to increase positive communication with parents, and it sets time for administrative interns to meet with teaching interns to develop collaborative plan and timeline.

practice. Southwest Texas State professors and McCallum faculty have attended a number of professional development activities together. Recent examples include the following:

- Training sessions in 4MAT (McCarthy & Morris, 1994), a system for designing curriculum to include a variety of student learning styles and intelligences
- A workshop designed to add to the teachers' and the professors' background knowledge about situational and generational poverty and to augment their strategies for working more effectively with students and parents who live in poverty
- The National School Conference Institute on Restructuring Secondary Schools, a three-day event in Scottsdale, Arizona

Opportunities for Scholarly Inquiry

McCallum personnel recognize that they have a responsibility for scholarly inquiry. Following are a few examples of products resulting from inquiry projects variously involving professors, preservice students, administrators, and teachers:

- Southwest Texas State professors and the McCallum principal reflected on their experiences in preparation and selection of teachers and coauthored "Factors in the Selection of Secondary School Teachers," which was published in the May 1996 issue of the *NASSP Bulletin* (*80*, 57–64).
- Preservice students produced a series of products for teachers and parents to share their findings about the McCallum tutoring program and their ideas about supporting and enhancing the tutoring effort.
- Preservice students are assisting in a schoolwide action research project to identify effective ways of boosting daily attendance and reducing truancy.

Such projects provide school personnel with additional resources to work on real problems. Simultaneously they offer opportunities for preservice teachers to develop an interest in and a respect for scholarly inquiry that is grounded in real school experience.

THE PDS AS A CATALYST FOR RESTRUCTURING TEACHER PREPARATION

An important aspect of the PDS model is to offer customized university courses on site and to engage the entire school, rather than a single cooperating or master teacher, in inducting the preservice teacher into the culture of teaching (Clark, 1990; Goodlad, 1990; Zimpher, 1990). The CPDT teacher preparation programs also have been restructured to

respond better to the need for preservice teachers to work with diverse student populations and to address the special needs of minority and low-income students. Each PDS–based teacher preparation program uses varied approaches, methods, and content to reflect the geographic, ethnic, and economic diversity and needs of its community.

In some instances the PDS represents the most comprehensive and collaborative effort ever initiated between the partner universities and schools to improve the teacher preparation program. The CPDTs have made significant progress, but restructuring continues, taking longer than either the universities or the schools originally anticipated.

The CPDTs have found that, as Zimpher (1990) and Anderson (1992) observe, the PDS model for clinical experiences involves higher costs in terms of time, personnel, and money than traditional student teaching does. The state recognized this early on, designing the CPDT program to provide universities and school districts with start-up funding for planning and implementing a PDS.

The first-generation PDSs no longer receive state support, and some CPDTs have found it necessary to adjust their PDS resource allocations (e.g., by reducing PDS personnel and other costs). Although the PDSs continue, there is concern that the reduction in resources has limited some capabilities, services, and professional development opportunities previously available to preservice teachers, PDS teachers, and university faculty.

"In some instances the PDS represents the most comprehensive and collaborative effort ever initiated between the partner universities and schools to improve the teacher preparation program."

THE PDS AS A CATALYST FOR RESTRUCTURING SCHOOLS

The PDS model involves not only school-university collaboration in redesigning teacher preparation but changes in teaching practices, learning environments, and school-university culture. Although there have been major gains in restructuring teacher preparation, such as those noted in the McCallum High School example, there is wider variation in progress at changing the present practices of the university faculty and teachers involved in PDSs. This reflects in part the variation in resources, leadership, degree of innovation, and quality of learning experiences within the schools and the universities. Although some PDSs were selected because of their reputation for excellence, others were selected on the basis of factors such as demographic characteristics, historical relationships with the university, proximity to the university, and the school administration's and faculty's desire to restructure the school. All these factors have created different conditions for, receptivity to, and resources for school reform.

Exhibit 2
Topics Addressed by CPDT Professional Development Sessions

Topic	Percent of Sessions Devoted to Topic
Technology	41
Learning strategies	14
Leadership/collaboration	8
Classroom management/discipline	7
Subject matter	7
Diversity/inclusion	7
Curriculum/assessment	6
Mentoring	5
Other	5

Note. From *Centers for Professional Development and Technology Statewide Evaluation Study: Final Summary Report* (p. 26), by Macy Research Associates, 1996, Wills Point, TX: Author.

Professional Development

An important strategy in the restructuring efforts of all PDSs is the planning and the offering of professional development experiences and support. Some have been planned and conducted at the local school site. Others have been planned by the CPDT and have involved other PDSs and other district and university staff as participants. CPDTs spent an average of $157,000 on professional development from 1993 to 1996. For the percentage of sessions devoted to specific professional development topics, see Exhibit 2.

In the view of CPDT staff, the professional development resources afforded by the CPDT were particularly important in the early stages of the PDS. The resources helped large numbers of schoolteachers and university faculty upgrade their knowledge and skills related to technology integration and enhance their knowledge of current learning strategies, curriculum development, assessment, and classroom management. The resources also provided increased opportunities for teachers to interact with one another and to reinforce their self-concept as professionals.

The PDS as a Learning Community

A number of PDSs have used professional development funding and resources to support specific school restructuring tasks and priorities that promote the growth of their PDS as a learning community. Nurturing a learning community capable of providing support for adults' and children's learning is one of the critical attributes of a successful PDS identified by NCATE's PDS Standards Project (Levine, 1997). The learning community concept honors all members of the PDS as

colearners—teachers, administrators, noncertified personnel, university faculty, graduate students, preservice teachers, and PreK–12 students. Each PDS member is recognized as having something of value to give to, and to learn from, the others in the learning community.

Calderón (1997) describes a "Teachers Learning Community" as a place to develop personal and professional expertise through the following strategies (p. 3):

- A talent development model
- Significant collegial relationships with peers
- An inquiry process
- Personal and professional improvement
- A mechanism to cope with change
- A sense of belonging for everyone
- Opportunities to learn together
- Shared responsibility
- Friendly feedback
- Creativity and invention
- Mutual support
- A place where a teacher's voice is heard and valued

The efforts of the Texas PDSs appear to focus on achieving a number of these characteristics. The description of a typical day at McCallum High School (see Exhibit 1) offers one example. Across CPDTs there is a commitment to professional development and improvement, the building of collegial relationships, and respect for the teacher's role and voice. Some are working to create a climate for teachers as well as university faculty to learn together and to encourage creativity, innovation, and risk-taking. There also are PDSs where the inquiry process is infused throughout the school, and teachers, university faculty, and students provide a base of mutual support and synergy for inquiry and research.

A common perception across CPDTs is a need to continue strengthening relationships not only among teachers, university faculty, and preservice teachers but, more important, between all of them and students. This perception is congruent with Hargreaves's (1997) observation that the school's preoccupation with skills and standardized tests has kept it from focusing on the heart of change—that is, on establishing bonds and forming relationships with students. Clearly, many PDSs are cognizant that they must develop students' skills. They also recognize that building collegial relationships is critical to their success and evolution.

"The learning community concept honors all members of the PDS as colearners—teachers, administrators, noncertified personnel, university faculty, graduate students, preservice teachers, and PreK–12 students. Each PDS member is recognized as having something of value to give to, and to learn from, the others in the learning community."

> ***"Many PDSs have had a long and hard road to travel in restructuring teacher preparation and have focused virtually all their energy and resources on that effort. As they accomplish the major tasks of restructuring teacher preparation, PDSs may be able to focus more attention on the goals of restructuring schools and changing the present instructional practices of both PDS teachers and university faculty."***

Nonetheless, some PDSs appear to view preservice teachers as the primary learners, and university faculty and experienced teachers as teachers of future teachers rather than as colearners within a larger learning community. In these PDSs the activities, the processes, and the resources seem to focus predominantly on preparation of new teachers. There are fewer indications of efforts to help university faculty and experienced teachers reflect on and analyze their own instruction and become extensively involved in their own continuing professional development.

These observations are consistent with the results of Myers's (1996) study of PDSs. The main focus of nearly all the PDS efforts that he analyzed was on inducting new teachers into schools. Little attention was devoted to helping university teacher educators or experienced PreK–12 teachers study their own practice, improve their work, or reform what they did. Although the general goal was to prepare beginning teachers better than "the old way," they were being prepared for teaching in a context of old ideas about school, learning, teaching, and professional development.

Myers proposes that PDSs do more than find new ways to induct beginning teachers into the profession as it currently exists. Rather than accept present ideas uncritically, PDSs should stimulate a rethinking of all facets of the education enterprise and help create schools, learning, and teaching of the future. They should induct beginning teachers into schools as schools might be rather than schools as they currently are.

Myers's recommendations appear equally cogent and relevant to some of the CPDT–sponsored PDSs. They have made significant and successful efforts to restructure teacher preparation curriculum and processes. They have made far less progress in radically transforming the school learning environment, reconceptualizing the learning of PreK–12 students, contributing to the knowledge base of teaching, and helping university faculty and experienced teachers reflect on their own instructional practices and views of the learning process.

One must be careful not to make judgments related to the variation noted in the school restructuring efforts of PDSs. Any assessment of progress must take into consideration where schools and university teacher preparation programs were before the PDS initiative. Many PDSs have had a long and hard road to travel in restructuring teacher preparation and have focused virtually all their energy and resources

on that effort. As they accomplish the major tasks of restructuring teacher preparation, PDSs may be able to focus more attention on the goals of restructuring schools and changing the present instructional practices of both PDS teachers and university faculty.

THE PDS AS A CATALYST FOR GENERATING KNOWLEDGE

The generation of new knowledge about effective teaching practices and learning environments is an important function of the PDS as advocated by the Holmes Group (1986), the Sid W. Richardson Foundation Forum (1992), and others. An important goal of the PDS is to create an environment and a structure in which schools and universities collaboratively engage in innovation through research on and reflection about teaching and learning in field settings (Button, Ponticelli, & Johnson, 1996). An exciting aspect of the PDS collaboration is the growing involvement of teachers not only as partners in research but as initiators of research. There are a number of excellent examples of the integration of research and inquiry into Texas PDSs.

PDS Research Strategies

A number of the CPDTs have engaged in research on PDSs. They also have developed successful strategies and support systems to encourage research within their PDSs. For example, the Texas Tech University PDS has an outstanding record of collaborative research. Contributing to its success is the role played by the university faculty liaison. The liaison serves on site-based management teams, participates in staff development, and is present in the school's day-to-day activities. An important part of the liaison's role is to raise questions and encourage teachers to raise questions, reflect, and develop conceptual frameworks. As noted by researchers from Texas Tech (Button et al., 1996), schools tend to jump to solutions and applications without always working from a strong conceptual base, whereas universities tend to work from theoretical perspectives without always relating research questions to actual contexts. Joint exploration and development of research questions by researchers and practitioners helps avoid these two pitfalls.

Another strategy used to stimulate and support collaborative research is the offering of graduate courses at the PDS that focus on the needs and the interests of the teachers. Texas Tech faculty and graduate students work side-by-side with teachers and administrators on research projects, taking on the roles of research mentor and facilitator throughout the process. This support has helped build teachers' confidence and knowledge to do research. Button et al. (1996) note that before the collaboration the PDSs were objects of research rather than initiators of and participants in it.

> ***"The results of a large-scale study on a Texas PDS demonstrated that groups of students can be prepared to teach successfully in inner-city schools when certain conditions are met."***

For the schools this has represented a major change in perception and support of research. Particularly exciting is the fact that teachers are now designing and conducting research projects within their school (many of which they have described in articles that they have then submitted for publication in professional journals). These inquiries are leading teachers to examine and revise their instructional practices and their curriculum. For example, a kindergarten teacher and the university liaison in one PDS collaborated on a research project on interactive writing. The research questions emerged in part from the reflections of the kindergarten teacher on her instructional practices. The project is resulting in changes in how the teacher integrates writing instruction into her curriculum.

An additional benefit of the collaborative research is that it has helped increase communication among schools, and between schools and the district administration. For example, the Texas Tech PDS reports increased sharing of best practices and research results across schools and more dialogue on common information needs that collaborative research might address.

The experiences of the Texas Tech PDS are evident in other PDSs across the state. For example, the Hillcrest PDS, established by the Baylor University CPDT, has seen growth in teacher initiation of action research within the school and increased collaboration on research between teachers and university faculty.

Larger-scale studies also have been initiated within and about the PDSs in Texas. For example, to evaluate the effects of a PDS experience, Jane Stallings (1991) of Texas A & M University interviewed first-year teachers who had completed their preservice preparation at a PDS sponsored by the CPDT at the university. The results demonstrated that groups of students can be prepared to teach successfully in inner-city schools when certain conditions are met. Another study at Texas A & M (Denton & Manus, 1995) examined the effects of technology infusion on PDS students' performance on the Texas Assessment of Academic Skills (TAAS). Findings revealed a trend toward higher academic performance at four of the eight sites. Studies such as these are critical to help inform decisions related to the PDS.

The preceding examples indicate the benefits of inquiry as a component of the PDS. At present, despite their importance, the research activities and functions of PDSs are not equally well developed in PDSs across the state. This stems in part from the major efforts required to deal with other important aspects of the PDS, such as re-

structuring teacher preparation, integrating technology into learning, addressing and changing policies, and allocating resources.

More needs to be known about (1) the effects of the PDS on reforming existing school structures, curricula, teacher practices, and student learning; (2) the effects of the PDS on preservice teachers, school administrators, teachers, and students; (3) effective strategies for infusing technology into the PDS and related benefits and pitfalls; and (4) the effects of the PDS experience on instructional practices of university faculty. CPDT staff expect that, as the Texas PDSs mature, they will direct increased attention and effort toward the research function, capabilities, and opportunities provided by the PDS model.

THE ROLE OF TECHNOLOGY IN THE PDS'S

The Texas Education Agency's guidelines for CPDT applications strongly encouraged proposals that would facilitate the integration of technology into the school curriculum and help prepare teachers to manage curriculum and instruction in more learner-centered classrooms. In many ways it was hoped that the CPDTs would not only prepare a new generation of high-quality teachers but upgrade the knowledge and technology skills of practicing teachers as well. The coupling of the PDS model with technology infusion provided a unique opportunity to better understand the role that technology might play in developing a PDS and in preparing technologically competent teachers.

Nationally, during the past 10 years, students' access to computers has increased dramatically, from less than one computer per classroom to one computer for every nine students. In the 1994–95 academic year alone, schools spent approximately $3.3 billion on technology (U.S. Congress, Office of Technology Assessment, 1995). In Texas schools, access to technology also has risen dramatically, although there remains wide variation both within and across school districts. Unfortunately, in many instances, colleges of education have not kept pace in infusing and integrating technology into teacher preparation (Resta, 1994).

Technological Resources of PDSs

The CPDT program provided elementary and secondary PDSs as well as universities with approximately 4,500 computers (Macy Research Associates, 1996). In some instances the CPDT funding provided the greatest infusion of technology ever experienced by either the PDS or the teacher education program.

In addition to hardware, CPDTs have provided PDSs with software, technology training, and technical support. Over a four-year

period they provided training to 17,000 educators, including 8,000 classroom teachers, 7,000 preservice teachers, 900 university faculty, and 650 school administrators. Many of them also provided on-site technical support for classroom teachers, faculty, and preservice students in the PDS. CPDT personnel view all these resources and accomplishments positively. Equipment, software, training, and technical resources are adequate to meet current and near-future needs of PDSs. There is concern, however, about securing the needed funding to maintain, update, and replace aging hardware and software.

Technology as a Catalyst for Change in PDSs

One unanticipated benefit of including technology in the development of PDSs is that it often has served as a catalyst for change within the PDSs and the colleges of education. Great interest, excitement, and enthusiasm have been generated by the infusion of technological resources into the PDSs. In many instances the technology appears to have

- *served as a physical representation of innovation within the university, the school, and the community.* For example, the technology represents a tangible, new, and exciting resource for many of the schools serving as PDSs, and the technology infusion helps signify within the district and the community that innovations will take place there.
- *created a climate in which it is safe for teachers, college faculty, and students to be colearners.* Many of the college faculty and schoolteachers in the PDSs had limited technological knowledge and skill before the implementation of the PDS. The professional development and the technical support accompanying the technology infusion have provided an effective and comfortable environment for them to explore the use of the new tools and resources.

Further, in some instances the technology seems to have

- *served as a catalyst in helping faculty and teachers move away from the traditional role of "information dispenser" toward that of facilitator and mentor within the classroom.* The use of new network-based tools and environments and the pairing of students on computers have changed the teacher's role to that of guide and promoted more collaborative learning environments.

The Effect of PDS Technology on School Students' Performance

The Texas Education Collaborative at Texas A & M University conducted a study (Denton & Manus, 1995) to determine whether the technology systems and the staff development implemented within the

PDSs affected the academic performance of learners as measured by TAAS. The researchers analyzed the performance of students in the eight elementary and secondary schools implementing the PDS model. Although not all schools yielded cumulative TAAS results that were higher than the preceding year's scores, the trend at four of the sites indicated that the effect of the evolving technology (as well as other possible factors) on students and teachers was higher academic performance.

Sustaining of the Technology Infusion

Although PDS personnel view positively the technology infusion and integration resulting from the CPDT program, they express concerns about the continued availability of resources and support to update the technology (some of which was provided as long ago as 1992). In addition, there are concerns about the continued availability of technology training and technical support services to help existing PDS teachers and faculty learn and incorporate new technological tools, as well as to train and support new PDS teachers and faculty. The collaborative partners must work together to ensure that the progress they have made will not erode in the future because of lack of support and resources.

BENEFITS OF JOINT OWNERSHIP

School-University Collaboration

Participants in PDSs stress collaboration as a key element in the relationship between PreK–12 schools and higher education institutions. One critical ingredient of a successful partnership is parity. PDSs are not about university educators "fixing" schools or about teachers telling college faculty what they do wrong. PDSs are about building parity in a relationship in which both school-based practitioners and university faculty are recognized for their essential contributions. Collaboration in a PDS means sharing responsibility for teacher education, professional development, research, and children's learning (Levine, 1997).

Among the benefits of the CPDT–sponsored PDSs are (1) increased collaboration in the clinical experiences of future teachers; (2) more opportunities for teachers and professors to work together and share and discuss ideas about best instructional practices; (3) greater engagement of school personnel and resources in addressing the needs of teacher preparation programs; and (4) collaborative research on effective teaching and teacher preparation. The forms of collaboration in PDSs are manifold, including university faculty and supervising teachers meeting one-on-one; university faculty and teachers or administrators meeting jointly on the teacher preparation program; teachers collaborating and initiating research with university faculty and graduate students; university staff participating in

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meetings of school leadership teams; and special task forces addressing particular needs or issues. In addition, the CPDT provides ongoing professional development experiences and support, in contrast to the typical inservice model of an outside consultant offering "one-shot" training for a large group of teachers, without follow-up. Other benefits to teachers include greater availability of help in the classroom from preservice students and a reduction in professional isolation resulting from increased communication and interaction with university faculty and students as well as peers.

Changes in School-University Perceptions and Roles

In creating a PDS, a collaborative must address major differences between school and university personnel in perceptions of roles and responsibilities. For example, university faculty have typically viewed schools and teachers as objects of research or recipients of research findings rather than as partners, collaborators, and even mentors. Teachers, on the other hand, have seldom assumed a major role and responsibility for the preparation of new teachers (Cochran-Smith & Lytle, 1993). Sustained collaboration and dialogue between university faculty and public school professionals produce changes in the roles and the perceptions of both groups. Pat Curtin of the Southwest Texas State University CPDT indicates that, more and more, each group recognizes the valuable knowledge and expertise that the other brings to the effort. Increasingly, university personnel value and solicit the input of public school professionals into the restructuring of teacher preparation. Education faculty who work in the PDSs report that they have increased their knowledge about the realities of teaching in today's classrooms and are more interested and engaged in efforts by the PDS to improve student achievement. As a result, their credibility with public school professionals has increased.

Although the university and the public school represent different cultures, the experiences of individuals in the PDSs indicate that the shared decision making, the ongoing dialogue and collaboration, and the joint ownership make it possible to bridge the gap between the two cultures. This is not accomplished immediately, and the time required to establish robust collaboratives depends, in part, on the collaboration and the communication systems previously established between the university and the school campus and district.

Increased Mutual Understanding

Another benefit of this kind of school-university collaboration is the increased understanding by university professors of the realities, the challenges, and the contexts of current classrooms, and a better understanding by teachers of the importance and the quality of teacher preparation.

Strengthening of Collaboration

Although the collaboration between the schools and the university generally is well accepted, CPDT personnel are aware that it cannot be taken for granted. The turnover in university faculty and public school teachers participating in PDSs, as well as the turnover in the leadership of the schools and the university, requires a continuing effort to sustain awareness of and reinforce support for the PDS. In addition, factors such as rapid growth in the public school student population, lack of classroom space, and school district funding cuts can negatively affect a PDS. A PDS requires the continuing commitment of both the university and the public schools to be sustained, to grow, and to improve. The Hillcrest PDS sponsored by the Baylor University CPDT (Baker, 1996) provides an example of the efforts necessary to maintain and strengthen the levels of collaboration.

CHALLENGES TO PDS'S

Although there are many benefits to the implementation of the PDS, there also are a number of continuing challenges:

- *Making the transition from external funding to internal support.* The end of CPDT program funding for the first-generation PDSs has posed new challenges and requirements for support from school and university partners and, in many instances, some adjustments in the services and the resources available to PDSs. The PDS requires adequate levels of funding to continue providing high-quality preparation of novice professionals, continuing development of experienced professionals, and research and development for the teaching profession. Such efforts are more costly to both the university and the school district than the traditional model of teacher education.

- *Faculty assignments.* The transition from autonomous scholar to collaborative partner has been difficult for some faculty and impossible for others. Those who do not work in PDSs typically make their contribution to the teacher preparation program by teaching the on-campus foundation courses, in classes that are usually larger than those in the field-based courses.

- *Time and labor required from the university faculty.* The role demands and the time commitments of university faculty in PDSs greatly exceed typical ones in on-campus-only instruction. In addition, the lack of college recognition of the heavy demands of PDS work may lead to morale problems.

- *Faculty isolation and fragmentation.* The PDS faculty spend extensive periods of time at the school site and are less visible to and

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> ***"The school district administration must ensure continued high-quality leadership for PDSs. Teachers and principals should have the option of deciding whether they wish to work in a PDS."***

have less contact with on-campus faculty. Some report feeling increasingly isolated and out of the mainstream of college interactions and activities.

- *Lack of clarity about the scholarly contribution of field-based work.* PDSs offer rich opportunities for action research. However, they provide limited opportunities for the traditional experimental and empirical research preferred by the prestigious research journals that are favored in tenure and promotion decisions for junior faculty.

- *Commitment to maintain space for university classes to meet.* PDSs that are experiencing increasing enrollment have found that the space originally allocated for university classes is needed to house public school classes. PDS personnel must find collaborative solutions to critical space shortages.

- *The "pack-mule" phenomenon.* Field-based faculty who have multiple teaching assignments find that they are constantly carting teaching materials and supplies from university to PDS and back. For example, one faculty member reported that, for an afternoon presentation titled Using Tradebooks Across the Curriculum, she had carried 40 pounds of books and supplies to her PDS. Then, at the end of the day, she had taken all of this material back to the university to use in a class on campus. The university supplies duplicating paper, transparencies, file folders, markers, etc., but faculty must transport all these items to the PDS. Space in both university and school parking lots generally is at a premium. This presents a major logistical challenge for faculty.

- *Challenges across the university campus.* Communicating new program guidelines to colleagues in the arts and sciences, and scheduling students, especially those in secondary education, for full days at PDS sites have been difficult at times.

NEED FOR CONTINUING SUPPORT

Continued support from the university, the school district, and the state is required if the PDS is to be sustained and to continue evolving, growing, and fulfilling its role in helping reform Texas public education.

University Support

Developing or strengthening the awareness, the commitment, and the support of the university central administration and the college of education is necessary for the PDS to continue. The support must be based on recognition of the importance of faculty work and involvement in the PDS. Incentives are needed to continue to attract addition-

al faculty participation. Metcalf-Turner and Fischetti (1996) note that course release time is critical if PDS faculty and teachers are to participate fully in the PDS and to reflect, share, and engage in scholarly inquiry that supports their PDS work. For example, during its start-up year, the Southwest Texas State Bowie PDS used CPDT grant funds to release teachers regularly for participation in training and related professional activities.

School District Support

The school district administration must ensure continued high-quality leadership for PDSs. Teachers and principals should have the option of deciding whether they wish to work in a PDS. The district also must make every effort to retain experienced teachers who embrace the PDS model and actively participate and contribute to its growth and development. In addition, if the PDSs are to serve as models for other schools in the district, the district must help ensure that sufficient space is available to support the PDS activities and that the technological resources, materials, facilities, and professional development support remain exemplary (Sid W. Richardson Foundation Forum, 1992).

State Support

The Texas Education Agency and the State Board for Educator Certification have played key roles in stimulating the establishment of PDSs across the state. PDSs need continued support to provide opportunities for universities and school districts to explore new collaborative models of professional development. Provision of waivers to regulations that inhibit innovation has helped encourage exploration and development of new models of teacher preparation. The state should sustain such waivers in the future, independent of the CPDT program.

The state also should consider providing longer-term funding to allow the CPDTs more time to develop and institutionalize the financial and structural support of the PDS. The present scheme of three years of support (the amount declining each year) should be extended to at least five years, with the possibility of modest levels of support following that period if significant progress has been made.

The recent statewide evaluation of CPDTs (Macy Research Associates, 1996) has provided important indicators of the progress made in development of PDSs. To continue generating similar data, state policy makers should consider establishing a statewide center or office that would gather and disseminate information about current Texas PDSs, as well as national and state research on PDSs. This function might be added to the mission of an existing state-funded center. In this way the state could help ensure that Texas education would reap the greatest benefits from past investments and current gains.

CONCLUSIONS AND RECOMMENDATIONS

The CPDT program represents a unique strategy by a state to encourage the PDS concept. The state provided funding and waived constricting regulations to help establish the resources and the climate for reforming teacher preparation. The visibility of the CPDT program helped focus statewide attention on developing high-quality teacher preparation and continuing professional development. First-generation CPDT directors think that the program has been successful in bridging differences between schools and universities and in fostering new levels of cooperation and collaboration. They also think that the CPDTs have made major progress in restructuring teacher preparation. In some instances the CPDT–sponsored PDSs also have played a major role in restructuring the learning processes and environment within the school and in developing learning communities.

A unique aspect of the CPDT approach to creation of a PDS is the emphasis on technology infusion. The CPDTs have infused technological resources into PDSs and, to a lesser extent, into university on-campus programs. Equally important, they have provided extensive technology training and technical support.

Among the strengths of the CPDT approach to the creation of PDSs is that it has provided strong incentives for school-university collaboration in professional development. The substantial levels of funding and the provision of significant technological resources to both schools and universities have been extremely attractive to the two types of institutions. In addition, the infusion of technology into the schools often has served as an important symbol of the change under way.

> *"In implementing similar programs in the future, all parties should recognize that, to evolve and to accomplish fully its mission of teacher preparation, continuous professional development, and research and development, a PDS needs time and resources."*

In implementing similar programs in the future, all parties should recognize that, to evolve and to accomplish fully its mission of teacher preparation, continuous professional development, and research and development, a PDS needs time and resources. All parties also should recognize that preparing teachers and PreK–12 students in technology is of vital importance because technology will play an important part in the lives of all citizens in the 21st century. It is recommended that future CPDT programs support collaboratives for at least five years. This longer period of gradually reduced program support would provide the CPDTs with more time to review and understand the funding necessary to support PDSs and to find new resources or reallocate existing resources to institutionalize and incorporate PDSs within both school district and university structures. States, districts, and universities should work together to identify current expenditures specifically dedicated to teacher preparation and professional development and determine the level of expenditure needed to support PDSs adequately.

Teacher organizations also should become active partners in the statewide PDS effort and help raise public awareness of the need for teacher professional development. Further, there must be greater efforts to increase the awareness and the involvement of parents, business, and the community in PDSs.

Since their inception the first-generation CPDTs have noted significant efforts and accomplishments in restructuring teacher preparation and enhancing the professional development of experienced teachers. They have made less consistent progress in strengthening the PDS as a vehicle or a process for inquiry, for development of new knowledge of teaching practice, and for restructuring of the school. It is recommended that the state, universities, and school districts work together to encourage and support these important roles of the PDS.

Significant progress has been made in development of the PDS through the CPDT program. However, there is no room for complacency, for just as suddenly as the PDSs have appeared, they could fade away for lack of commitment, energy, and continuing support.

If the PDSs are to evolve and grow, they must have the continuing attention and support of the state, universities, and school districts, as well as teacher organizations, the community, and business. Only in this way can the CPDT–sponsored PDSs become fully integrated and institutionalized within university and school district structures and fulfill their role as a catalyst to transform education in Texas.

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TEXAS CPDT INSTITUTIONS

Fully Approved Centers

Abilene Christian University
Hardin-Simmons University, Abilene
Houston Baptist University
Howard Payne University, Brownwood
Lamar University, Beaumont*
Lubbock Christian University
McMurry University, Abilene
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